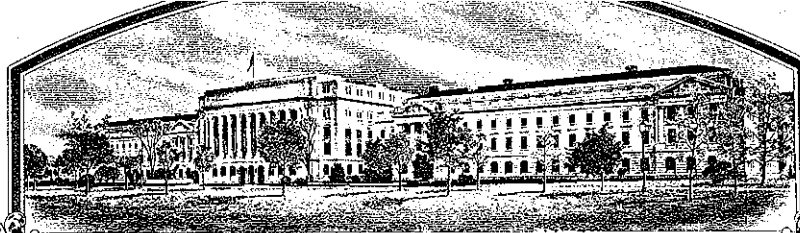


No.



7900017

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Asgrow Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *seventeen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (U.S. STATUTE, 1930, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

LETTUCE

'Coolguard'



In Testimony Whereof, I have hereunto set
my hand and caused the seal of the Plant
Variety Protection Office to be affixed
at the City of Washington
this 26th day of July in
the year of our Lord one thousand nine
hundred and seventy-nine

Attest:

Ernest C. Lee
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

W. B. Bly
Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

FORM APPROVED
OMB NO. 40-R3822

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

INSTRUCTIONS: See Reverse.

1a. TEMPORARY DESIGNATION OF VARIETY XP 505		1b. VARIETY NAME Coolguard <i>set 790627</i>		FOR OFFICIAL USE ONLY PV NUMBER 7900017	
2. KIND NAME Lettuce		3. GENUS AND SPECIES NAME Lactuca sativa		FILING DATE 11-22-78	TIME 2:30 <input checked="" type="radio"/> A.M. <input type="radio"/> P.M.
4. FAMILY NAME (BOTANICAL) Compositae		5. DATE OF DETERMINATION April 1971		FEE RECEIVED \$ 500.00 \$ 250.00	DATE 11-22-78 6-22-79
6. NAME OF APPLICANT(S) Asgrow Seed Company		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) Kalamazoo, Michigan 49001		8. TELEPHONE AREA CODE AND NUMBER (616) 385-6605	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) Corporation			10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION Delaware		11. DATE OF INCORPORATION March 22, 1968
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: John A. Batcha; Asgrow Seed Company; Unit 9630-190-1; Kalamazoo, Michigan 49001					

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- ☒ 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- ☒ 13B. Exhibit B, Novelty Statement.
- ☒ 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- ☐ 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.) ☐ YES ☒ NO

14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO

14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED?
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? ☐ YES ☒ NO (If "Yes," give name of countries and dates.)

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? ☐ YES ☐ NO (If "Yes," give name of countries and dates.)

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? ☒ YES ☐ NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

October 17, 1978
(DATE)

John A. Batcha
(SIGNATURE OF APPLICANT)

John A. Batcha

1

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

Asgrow Seed Company
Lettuce, ~~XP-505~~

Coolguard 187 790627

7900017

EXHIBIT A

ORIGIN AND BREEDING HISTORY

Coolguard

~~XP-505~~ originated as a single plant selection made in California in 1970 from the variety Vanguard. No additional breeding was done other than to select out an orange colored flower type which showed up in earlier increase generations.

Coolguard

~~XP-505~~ lettuce is uniform and stable. Uniformity was established in 1971 trials. Stability has been established in six increases since where ~~XP-505~~ *Coolguard* has been found uniform with variants within commercially acceptable limits.

Asgrow Seed Company
Lettuce, XP-505

Coolguard
Jef 790627

EXHIBIT B

NOVELTY STATEMENT

7900017

Coolguard

To our knowledge the lettuce varieties most similar to XP-505 in overall characteristics are Winterhaven and Vanguard. Characteristics which make XP-505 a different variety include but are not restricted to the following:

Coolguard

Coolguard XP-505 compared to Winterhaven

Coolguard

Flower color - XP-505 has a lighter yellow flower color than Winterhaven. Comparative colors using the Royal Horticultural Society color charts are:

Coolguard

XP-505

Color 4-D

Winterhaven

Color 6-C

Butt Shape - In repeated trials Winterhaven has a more pointed butt than XP 505 which has a flatter shaped butt.

Coolguard

XP-505 compared to Vanguard

Coolguard

XP-505 produces a larger head and frame size than Vanguard as is evidenced by the following data:

Comparative head diameter (average per plant) in centimeters in trials with 10 plants per variety per trial is as follows:

	<i>Coolguard</i> XP-505	Vanguard
Trial #1	17.9	16.6
Trial #2	14.5	13.4
Trial #3	17.7	16.0
Trial #4	16.35	15.5
Trial #5	16.6	15.5
Trial #6	15.2	14.2

16.375

15.2

Comparative frame diameter (average per plant) in centimeters in trials with 10 plants per trial is as follows:

	XP-505 <i>Coolguard</i>	Vanguard
Trial #1	39.8	37.0
Trial #2	45.9	42.0
Trial #3	47.4	45.6
Trial #4	51.0	47.7
Trial #5	37.9	35.6
Trial #6	46.6	43.1
Trial #7	52.5	46.1

45.87

42.44

Comparative flower color is different. Colors using the Royal Horticultural Society color charts are:

Coolguard

XP-505

Color 4-D

Vanguard

Winterhaven

Color 6-D

7/5 5/11/79

In addition to the above differences which establish novelty trials indicate XP-505 is less leafy than Winterhaven during cold winters and is also a slightly darker green color. Trials indicate XP-505 has more leaf protection for the head than does Vanguard.

Coolguard

OBJECTIVE DESCRIPTION OF VARIETY
(LETTUCE)

INSTRUCTIONS: See reverse.

NAME OF APPLICANT(S)

Asgrow Seed Company

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

Kalamazoo, Michigan 49001

FOR OFFICIAL USE ONLY

PVPO NUMBER

297 - 1 - 7900017

VARIETY NAME OR TEMPORARY DESIGNATION

~~XP 505~~ Coolguard ~~7900017~~

Place the appropriate number that describes the varietal character of this variety in the boxes below.

1. PLANT TYPE:

10 = CUTTING (Leaf)

20 = STALK

50 = BUTTERHEAD

60 = LATIN

70 = OTHER (Specify)

30 = COS

31 = SELF-CLOSING GROUP

32 = LOOSE-CLOSING GROUP

40 = CRISPHEAD

41 = IMPERIAL GROUP

42 = GREAT LAKES GROUP

43 = VANGUARD

44 = NEW YORK GROUP

2. SEED COLOR:

1 = WHITE 2 = BLACK 3 = YELLOW

3. ANTHOCYANIN:

1 = ABSENT 2 = PRESENT

4. LEAF CONTAINING ANTHOCYANIN:

1 = COVERED 2 = SPOTTED 3 = ALONG MARGIN 4 = ABSENT 5 = OTHER (Specify)

5. LEAF SURFACE TEXTURE:

1 = SMOOTH 2 = BLISTERED

6. LEAF SURFACE REFLECTANCE:

1 = DULL 2 = GLOSSY 3 = OTHER (Specify)

7. LEAF MARGIN:

1 = STRAIGHT 2 = WAVY 3 = CURLED

1 = ENTIRE 2 = DENTATE 3 = INCISED 4 = DEEPLY INCISED 5 = OTHER (Specify)

8. LEAF SHAPE:

1 = ROUNDED 2 = POINTED

1 = BROADER THAN LONG 2 = LONGER THAN BROAD 3 = OTHER (Specify)

9. LEAF COLOR: (See reverse.)

1 = RED 2 = REDDISH-BROWN 3 = YELLOW 4 = YELLOWISH-GREEN 5 = GREYISH-GREEN 6 = BLUE-GREEN 7 = DARK-GREEN 8 = VERY DARK GREEN

10. HEADS:

1 = SPHERICAL 2 = FLATTENED 3 = ELONGATE 4 = POINTED 5 = NON-HEADING

11. PLANT SIZE: (See reverse.)

1 = SMALL 2 = MEDIUM 3 = LARGE

12. CULTURE:

1 = SUMMER CROP 2 = WINTER CROP 3 = NOT SPECIFIC 4 = UNDER GLASS 5 = OTHER (Specify)

13. SIZE OF 10-DAY OLD SEEDLING GROWN UNDER CONSTANT LIGHT (Growth Chamber) AT 25° C.: (Place a zero in first box (i.e.) when size is 9 mm. or less.)

mm. LENGTH OF SEEDLING

mm. LENGTH OF COTYLEDON

mm. WIDTH OF COTYLEDON

14. DISEASE RESISTANCE TO: (Enter zeros in box(es) where there is no special disease resistance.)

1 = TIPBURN

2 = MOSAIC

3 = DAMPING OFF

4 = DOWNY MILDEW

5 = SCLEROTINIA ROT

6 = BROWN BLIGHT

7 = BIG VEIN

8 = OTHER (Specify)

15. OUTLINE THE FOURTH LEAF: (For standardization purposes, the fourth leaf should be taken from a 20-day old plant grown under constant light.)

See attached sheet

* (Enter 0 - Not Treated; 1 - Susceptible; 2 - Resistant)

7900017

FORM GR-471 (REVERSE)

16. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER		NAME OF VARIETY				
Leaf color		Vanguard				
Leaf pigmentation		Vanguard				
Leaf shape		Vanguard				
Plant size		Moranguard				
Head size		Winterhaven				
VARIETY	NO. OF DAYS TO HEAD MATURITY UNDER WINTER CROPPING	LOCATION	NO. OF DAYS TO HEAD MATURITY UNDER SUMMER CROPPING	LOCATION	NO. OF DAYS TO SEED STALK EMERGENCE UNDER SUMMER CROPPING	LOCATION
Submitted	122	Arizona & Imperial Valley	Not Adapted		51	
Similar	125	"	Not Adapted		52	
Name of similar variety	Vanguard		Vanguard		Vanguard	

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for completing this form:

1. C. M. Rodenburg, 1960, Varieties of Lettuce, An International Monograph, Instituut Voor de Veredeling van Tuinbouwgewassen, Wageningen, Holland.
2. L. L. Morse, 1930, Field Notes on Lettuce, published by Ferry-Morse Seed Co.

LEAF COLOR: Nickerson's or any recognized color fan may be used to determine the leaf color of the described variety. The following lettuce varieties may be used as a guide to identify the eight colors listed on the form.

ColorVariety

Red
 Reddish-brown
 Yellow
 Yellowish-green
 Greyish-green
 Bluish-green
 Dark-green
 Very dark green

"Salad Trim"
 "Ruby"
 "Salad Bowl"
 "Oakleaf"
 "White Boston"
 "Bibb"
 "Imperial" group
 "Deer Tongue"

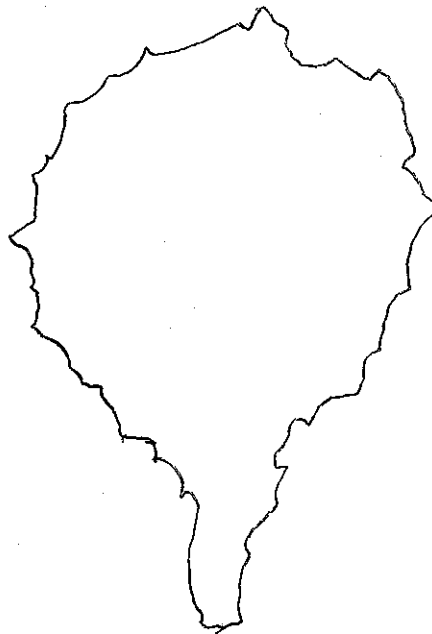
PLANT SIZE: The following varieties may be used as a guide to identify the plant type size:

TYPE	COMPARABLE VARIETIES		
	SMALL	MEDIUM	LARGE
Cutting (leaf)	Boston-Curled	Prize Head	Grand Rapids
Stalk (stem)	Celtuce	--	--
Cos	Express	Parris Island	Giant White
Crisphead	Mignonette	Hanson (Merit)	Climax
Butterhead	Tom Thumb	Big Boston	Mammoth Butter
Latin	Sucrine	Creole	Deer Tongue

Asgrow Seed Company
Lettuce, XP505

Coolguard
487 790627

7900017

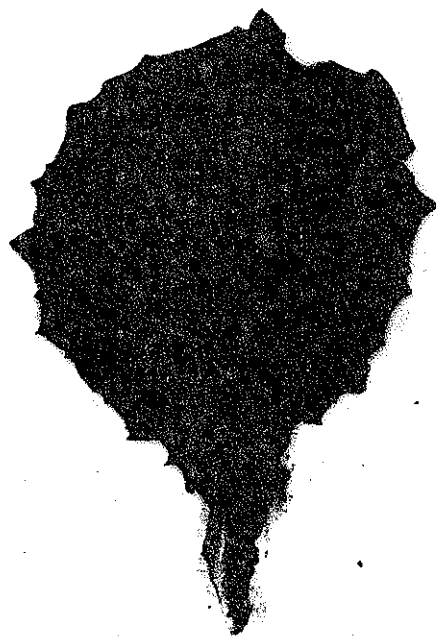


Asgrow Seed Company
Lettuce, ~~XP505~~

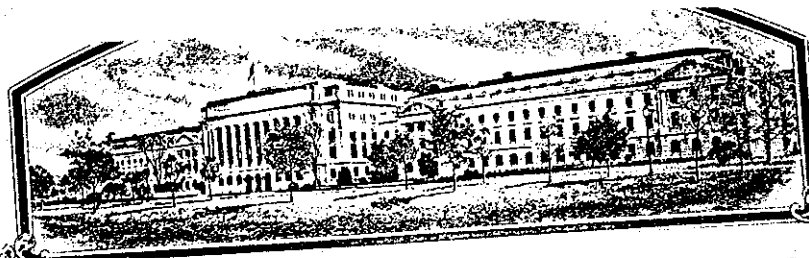
Coolguard

Lot 790627

7900017



No.



7900017

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Asgrow Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *seventeen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXHIBIT IT TO OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (U.S.C. 2321 ET SEQ.)

LETTUCE

'Coolguard'

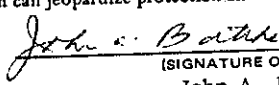


In Testimony Whereof, I have hereunto set
my hand and caused the seal of the Plant
Variety Protection Office to be affixed
at the City of Washington
this 26th day of July in
the year of our Lord one thousand nine
hundred and seventy-nine

Attest:

Ernest C. Lee
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

W. B. Bay
Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE LIVESTOCK, POULTRY, GRAIN & SEED DIVISION		FORM APPROVED OMB NO. 40-R3822	
APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE			
INSTRUCTIONS: See Reverse.			
1a. TEMPORARY DESIGNATION OF VARIETY XP 505	1b. VARIETY NAME Coolguard <i>det 770627</i>	FOR OFFICIAL USE ONLY	
2. KIND NAME Lettuce	3. GENUS AND SPECIES NAME Lactuca sativa	PV NUMBER 7900017	FILING DATE 11-22-78
4. FAMILY NAME (BOTANICAL) Compositae	5. DATE OF DETERMINATION April 1971	TIME 2:30 P.M.	DATE 11-22-78
6. NAME OF APPLICANT(S) Asgrow Seed Company	7. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code) Kalamazoo, Michigan 49001	FEE RECEIVED \$ 500.00 \$ 250.00	8. TELEPHONE AREA CODE AND NUMBER (616) 385-6605
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) Corporation		10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION Delaware	11. DATE OF INCORPORATION March 22, 1968
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: John A. Batcha; Asgrow Seed Company; Unit 9630-190-1; Kalamazoo, Michigan 49001			
13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED: <input checked="" type="checkbox"/> 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.) <input checked="" type="checkbox"/> 13B. Exhibit B, Novelty Statement. <input checked="" type="checkbox"/> 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.) <input type="checkbox"/> 13D. Exhibit D, Additional Description of the Variety.			
14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input type="checkbox"/> NO		14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED	
15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)			
15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input type="checkbox"/> NO (If "Yes," give name of countries and dates.)			
16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.			
October 17, 1978 (DATE)		 (SIGNATURE OF APPLICANT) John A. Batcha 1	
(DATE)		(SIGNATURE OF APPLICANT)	

Asgrow Seed Company
Lettuce, XP-505
Coolguard 387 790627

7900017

EXHIBIT A

ORIGIN AND BREEDING HISTORY

Coolguard
XP-505 originated as a single plant selection made in California in 1970 from the variety Vanguard. No additional breeding was done other than to select out an orange colored flower type which showed up in earlier increase generations.

Coolguard
XP-505 lettuce is uniform and stable. Uniformity was established in 1971 trials. Stability has been established in six increases since where XP-505 *Coolguard* has been found uniform with variants within commercially acceptable limits.

COPY

Asgrow Seed Company
Lettuce, XP-505

Coolguard

7/4 790017

EXHIBIT B

7900017

Coolguard

NOVELTY STATEMENT

To our knowledge the lettuce varieties most similar to XP-505 in overall characteristics are Winterhaven and Vanguard. Characteristics which make XP-505 a different variety include but are not restricted to the following:

XP-505 compared to Winterhaven

Flower color - XP-505 has a lighter yellow flower color than Winterhaven. Comparative colors using the Royal Horticultural Society color charts are:

XP-505 Color 4-D
Winterhaven Color 6-C

Butt Shape - In repeated trials Winterhaven has a more pointed butt than XP 505 which has a flatter shaped butt.

XP-505 compared to Vanguard

XP-505 produces a larger head and frame size than Vanguard as is evidenced by the following data:

Comparative head diameter (average per plant) in centimeters in trials with 10 plants per variety per trial is as follows:

	<u>XP-505</u>	<u>Vanguard</u>
Trial #1	17.9	16.6
Trial #2	14.5	13.4
Trial #3	17.7	16.0
Trial #4	16.35	15.5
Trial #5	16.6	15.5
Trial #6	15.2	14.2

Comparative frame diameter (average per plant) in centimeters in trials with 10 plants per trial is as follows:

	<u>XP-505</u>	<u>Vanguard</u>
Trial #1	39.8	37.0
Trial #2	45.9	42.0
Trial #3	47.4	45.6
Trial #4	51.0	47.7
Trial #5	37.9	35.6
Trial #6	46.6	43.1
Trial #7	52.5	46.1

Comparative flower color is different. Colors using the Royal Horticultural Society color charts are:

XP-505 Color 4-D

Vanguard Winterhaven Color 6-C

In addition to the above differences which establish novelty trials indicate XP-505 is less leafy than Winterhaven during cold winters and is also a slightly darker green color. Trials indicate XP-505 has more leaf protection for the head than does Vanguard.

7/7 5/11/79

FORM GR-471
(4-3-72)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

EXHIBIT C

OBJECTIVE DESCRIPTION OF VARIETY
(LETTUCE)

INSTRUCTIONS: See reverse.

NAME OF APPLICANT(S)

Asgrow Seed Company

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

Kalamazoo, Michigan 49001

FOR OFFICIAL USE ONLY

PVPO NUMBER

297-1-7900017

VARIETY NAME OR TEMPORARY
DESIGNATION

XP-505 Coolguard

Place the appropriate number that describes the varietal character of this variety in the boxes below.

1. PLANT TYPE: <input type="checkbox"/> 4 <input type="checkbox"/> 3 10 = CUTTING (Leaf) 20 = STALK 50 = BUTTERHEAD 60 = LATIN 70 = OTHER (Specify) _____		30 = COS 31 = SELF-CLOSING GROUP 32 = LOOSE-CLOSING GROUP	40 = CRISPHEAD 41 = IMPERIAL GROUP 42 = GREAT LAKES GROUP 43 = VANGUARD 44 = NEW YORK GROUP
2. SEED COLOR: <input type="checkbox"/> 2 1 = WHITE 2 = BLACK 3 = YELLOW		3. ANTHOCYANIN: <input type="checkbox"/> 1 1 = ABSENT 2 = PRESENT	
4. LEAF CONTAINING ANTHOCYANIN: <input type="checkbox"/> 4 1 = COVERED 2 = SPOTTED 3 = ALONG MARGIN 4 = ABSENT 5 = OTHER (Specify) _____			
5. LEAF SURFACE TEXTURE: <input type="checkbox"/> 2 1 = SMOOTH 2 = BLISTERED		6. LEAF SURFACE REFLECTANCE: <input type="checkbox"/> 1 1 = DULL 2 = GLOSSY 3 = OTHER (Specify) _____	
7. LEAF MARGIN: <input type="checkbox"/> 2 1 = STRAIGHT 2 = WAVY 3 = CURLED		8. LEAF SHAPE: <input type="checkbox"/> 1 1 = BROADER THAN LONG 2 = LONGER THAN BROAD 3 = OTHER (Specify) _____	
9. LEAF COLOR: (See reverse.) <input type="checkbox"/> 6 1 = RED 2 = REDDISH-BROWN 3 = YELLOW 4 = YELLOWISH-GREEN 5 = GREYISH-GREEN 6 = BLUE-GREEN 7 = DARK-GREEN 8 = VERY DARK GREEN			
10. HEADS: <input type="checkbox"/> 1 1 = SPHERICAL 2 = FLATTENED 3 = ELONGATE 4 = POINTED 5 = NON-HEADING		11. PLANT SIZE: (See reverse.) <input type="checkbox"/> 3 1 = SMALL 2 = MEDIUM 3 = LARGE	
12. CULTURE: <input type="checkbox"/> 2 1 = SUMMER CROP 2 = WINTER CROP 3 = NOT SPECIFIC 4 = UNDER GLASS 5 = OTHER (Specify) _____			
13. SIZE OF 10-DAY OLD SEEDLING GROWN UNDER CONSTANT LIGHT (Growth Chamber) AT 25° C.: (Place a zero in first box (i.e. 012)) when size is 9 mm. or less.) <input type="checkbox"/> 2 <input type="checkbox"/> 8 mm. LENGTH OF SEEDLING <input type="checkbox"/> 2 <input type="checkbox"/> 6 mm. LENGTH OF COTYLEDON <input type="checkbox"/> 0 <input type="checkbox"/> 6 mm. WIDTH OF COTYLEDON			
14. DISEASE RESISTANCE TO: (Enter zeros in boxes where there is no special disease resistance.) <input type="checkbox"/> 1 1 = TIPBURN <input type="checkbox"/> 1 2 = MOSAIC <input type="checkbox"/> 1 3 = DAMPING OFF <input type="checkbox"/> 1 4 = DOWNY MILDEW <input type="checkbox"/> 0 5 = SCLEROTINIA ROT <input type="checkbox"/> 0 6 = BROWN BLIGHT <input type="checkbox"/> 1 7 = BIG VEIN <input type="checkbox"/> 0 8 = OTHER (Specify) _____			
15. OUTLINE THE FOURTH LEAF: (For standardization purposes, the fourth leaf should be taken from a 20-day old plant grown under constant light.)			

See attached sheet

* (Enter 0 - Not Treated; 1 - Susceptible; 2 - Resistant)

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FORM GR-471 (REVERSE)

16. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER		NAME OF VARIETY				
Leaf color		Vanguard				
Leaf pigmentation		Vanguard				
Leaf shape		Vanguard				
Plant size		Moranguard				
Head size		Winterhaven				
VARIETY	NO. OF DAYS TO HEAD MATURITY UNDER WINTER CROPPING	LOCATION	NO. OF DAYS TO HEAD MATURITY UNDER SUMMER CROPPING	LOCATION	NO. OF DAYS TO SEED STALK EMERGENCE UNDER SUMMER CROPPING	LOCATION
Submitted	122	Arizona & Imperial Valley	Not Adapted		51	
Similar	125	"	Not Adapted		52	
Name of similar variety	Vanguard		Vanguard		Vanguard	

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for completing this form:

1. C. M. Rodenburg, 1960, Varieties of Lettuce, An International Monograph, Instituut Voor de Veredeling van Tuinbouwgewassen, Wageningen, Holland.
2. L. L. Morse, 1930, Field Notes on Lettuce, published by Ferry-Morse Seed Co.

LEAF COLOR: Nickerson's or any recognized color fan may be used to determine the leaf color of the described variety. The following lettuce varieties may be used as a guide to identify the eight colors listed on the form.

Color	Variety
Red	"Salad Trim"
Reddish-brown	"Ruby"
Yellow	"Salad Bowl"
Yellowish-green	"Oakleaf"
Greyish-green	"White Boston"
Bluish-green	"Bibb"
Dark-green	"Imperial" group
Very dark green	"Deer Tongue"

PLANT SIZE: The following varieties may be used as a guide to identify the plant type size:

TYPE	COMPARABLE VARIETIES		
	SMALL	MEDIUM	LARGE
Cutting (leaf)	Boston-Curled	Prize Head	Grand Rapids
Stalk (stem)	Celtuce	--	--
Cos	Express	Parris Island	Giant White
Crisphead	Mignonette	Hanson (Merit)	Climax
Butterhead	Tom Thumb	Big Boston	Mammoth Butter
Latin	Sucrine	Creole	Deer Tongue

Asgrow Seed Company
Lettuce, XP505-

Coalgated
dit 79027

7900017

COPY

Asgrow Seed Company
Lettuce, XP505-
 Conquered
 lot 790627

7900017

COPY





United States
Department of
Agriculture

Agricultural
Research
Service

Northern Plains Area
National Seed
Storage Laboratory

1111 South Mason Street
Fort Collins, CO 80521-4500
Telephone: 970 495-3200
Fax: 970 221-1427

February 14, 1997

Marian R. Minnifield, Secretary
Plant Variety Protection Office
NAL Building, Room 500
10301 Baltimore Boulevard
Beltsville, Maryland 20705-2351

Subject: Expired PVPO's; disposition of

1. The following expired PVPO's have been transferred to the NPGS. Our records have been changed accordingly.

Serial Number PVP Number

101862	01	PVP 7800029
102219	01	PVP 7800010
102675	01	PVP 7800088
102676	01	PVP 7400011
103506	01	PVP 7800084
103507	01	PVP 7900016
103508	01	PVP 7800082
103840	01	PVP 7900017 ✓
103842	01	PVP 7900067
104549	01	PVP 7700106
104551	01	PVP 7100046
314988	01	PVP 9500276
101863	01	PVP 7800026
102222	01	PVP 7800078
102226	01	PVP 7800091
101854	01	PVP 7200134
102214	01	PVP 7605014
102216	01	PVP 7900011
102217	01	PVP 7800095
102218	01	PVP 7800093
102220	01	PVP 7800097
102221	01	PVP 7800042

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102673	01	PVP 7800059
103502	01	PVP 7800096
103503	01	PVP 7800074
103509	01	PVP 7900044
103510	01	PVP 7900047
103838	01	PVP 7500042
103843	01	PVP 7300101
101859	01	PVP 7200132
102227	01	PVP 7700085
103511	02	PVP 7800028
103839	01	PVP 7900049
103845	01	PVP 7900048
104548	02	PVP 7800057
104550	01	PVP 7800024

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Sincerely,

Eugene Keys
EUGENE KEYS